

AMENDMENTS TO THE CLAIMS:

Claims 1-8 (cancelled)

9. (Previously presented) An apparatus for treating a waste gas containing fluorine-containing compounds from a semiconductor fabrication process, comprising:

a solids treating device for removing solids and acidic gases including Si compounds from a waste gas containing fluorine-containing compounds;

an addition device for adding H₂ and/or H₂O and O₂ as a decomposition assist gas to the waste gas discharged from said solids treating device;

a thermal decomposition device for decomposing into acidic gases and CO₂ perfluorocarbons, oxidizing gases and CO discharged from said solids treating device and to which the decomposition assist gas has been added, said thermal decomposition device comprising a preheating chamber and a catalyst chamber packed with γ -alumina to be heated to 500°C to 1000°C;

an acidic gas treating device for removing acidic gases discharged from said thermal decomposition device;

a supply line for supplying the waste gas into said solid treating device;

a first line interconnecting said solids treating device and said thermal decomposition device, and a second line interconnecting said thermal decomposition device and said acidic gas treating device;

a discharge line for discharging treated gas from said acidic gas treating device;

a bypass interconnecting said supply line and said discharge line, said bypass having a bypass valve such that upon actuation of said bypass valve the waste gas is conveyed from said supply line to said discharge line without entering said solids treating device;

an air ejector, positioned in said discharge line, for maintaining a negative pressure in each of said solids treating device, said thermal decomposition device, said acidic gas treating device and said first and second lines; and

an analyzer, positioned immediately upstream of said air ejector, for controlling emission density of the treated gas discharged from said acidic gas treating device.

Claims 10-11 (cancelled)

12. (Previously presented) The apparatus according to claim 9, wherein at least one of said solids treating device and said acidic gas treating device comprises a water scrubber.

Claims 13-14 (cancelled)

15. (Previously presented) The apparatus according to claim 9, wherein said analyzer comprises an FT-IR analyzer.

Claim 16 (cancelled)

17. (Previously presented) The apparatus according to claim 15, wherein said FT-IR analyzer is for monitoring the treated gas discharged from said acidic gas treating device so as to control emission density of the treated gas.

Claims 18-29 (cancelled)